



George Yui, President, Diemaster Tool Inc., Cooksville

“For myself, toolmaking is more than a job, it’s a hobby, it’s my obsession, it’s my whole life.”

“Only the top ones, only the people really interested in the trade, stay as apprentices in my company! I select apprentices carefully, and my program here has a 100 per cent success rate. I’m not looking for a person who knows anything about machines; I’m looking for common sense, and a desire to succeed. Once people know and can master every single trick, then they should move to the next project, to the next position.

“And I definitely feel that if people have a nine-to-five attitude, they will not succeed. A good education and sound training of the right apprentice is the secret of success. My advice to young people is to be interested in the job legitimately... and to have that extra drive to make them get up in the middle of the night to go look in a book just to check a fact or a method that they’re unsure of.

“Toolmaking is a challenging trade. It’s a difficult trade, and it takes a very clever person to do the job properly.”

Toolmaking is very important for everyday living, for defense, for research and development. There is not a single item that we use that a toolmaker was not involved in. In one average house, there are up to a hundred thousand items that have been produced by the tooling that is made by toolmakers.

“A toolmaker can find a job anywhere — this is the beauty of it. I learned my trade in China and I worked for several years in Brazil. I never had any trouble when I came to Canada either and could hardly speak English. I found a job myself, through

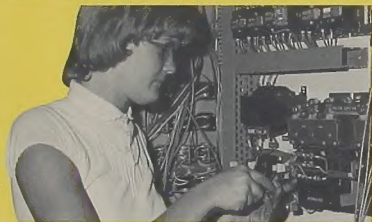
the newspaper in 10 days, and back in 1966, it was hard to find a job. In my opinion, there was, and is, a market for good precision workmanship. Now I have the opportunity to express my craft through the personnel I manage.

“Toolmakers become production supervisors, process planners, designers, engineers, plant managers, presidents, inventors.”

“If you are manager, how can you manage if you don’t understand what your people are doing? You must understand what they do, how they do it, before you can start managing them. In my opinion, bank managers would be better managers if they were toolmakers, you know, because they’ll understand the

ins and outs of the manufacturing industry. Patent attorneys with mechanical engineering or toolmaking backgrounds are able to understand the mechanical devices they have to patent.

“We’re going to have more and more special-purpose machines; by the year 2000 we’re going to have robots doing the work for us. You press the button and the robot does it. Now the question is who’s going to make the robot and who’s going to make the button? Toolmakers. You can imagine the number of electricians, toolmakers, mechanics, and machinists needed to make and service these machines in the future!”



Sheryl Maisonneville, Journeyman Electrician,* Windsor

“Being an electrician is a challenge. It’s great, after doing all the wiring, to see a machine or a system work.”

“I served my apprenticeship through the Essex and Kent Joint Apprenticeship Council who, in turn, sent us to four or five different shops during our apprenticeship to get a variety of job experiences. The training has been excellent with the International Brotherhood of Electrical Workers. We had four years of night school besides our

24 weeks of day school at St. Clair College. I would have been lost without all that extra schooling. We covered industrial, commercial and some residential electrical work. My home base is still the union.

“The electrical panel on the side of the press I’m working on now was made in the shop at Moncur Electric Ltd., my present employer. But all the limit switches and the different valves we have to connect to the panel to make the press work are wired right here at Fabricated Steel Products Ltd. I’m contracted by Moncur to work on this project at Fabco. Then I’ll work somewhere else when I’m finished here. It’s nice; I’m always moving.

“I took commercial in high school, because girls always take commercial! I worked in a bank for two years after getting my grade 12. Working in a bank was boring with just four walls all day.



Jacques Verner, Foreman, Numerical Control Machine Department, Atomic Energy of Canada Limited, Ottawa

“I enjoy what I’m doing. I get the drive out of it; I get fun out of it. I enjoy my work.”

“My training has been a constant education. You learn something new all the time. You never do anything that you don’t learn from. You get on a small job, when there’s only you and another guy, then you have to learn.

“To be a good electrician, you have to get along with the partner you are working with all day. You have to have patience, especially when you’re wiring a panel. You have to keep all your wires neat; you have to remain calm, too.

“I can’t speak for other trades, but I know in this one you can’t be scared to get dirty, to break your nails. You can’t be afraid to walk into a plant of 500 guys; you’ve got to stick your head up in the air and say ‘I belong here too!’ It’s the only way you can do it. You have to be willing to learn.

“AECL had just three Numerical Control (NC) machines when I started eight years ago as a journeyman machinist. NC really intrigued me the way it was working. I ordered a 23-volume correspondence course, studied hard, and the first day AECL put me on an NC machine I made a little program. Since then the company has sent me on several courses in the States and Canada to learn about different NC machines.

“Numerical Control machines direct the movements and functions of metal cutting machines — the lathes, the milling and boring machines. Using different coding, you can ‘write’ whatever movement you want onto

tapes. The coded information then goes into the memory bank of the NC and it comes out as a machine function.

“NC machines are a relatively new concept. If the set-up is good, with the right speed, depth, diameter, the right size of milling cutter, all according to the blueprint, the machinist can make a hundred parts, all exactly identical. NC machines can be used to great advantage in large and small batch quantities without incurring the high cost of jigs and fixtures.

“I like precision. I like to really make a part look good and, at the same time, make it exactly the right size. At AECL, we work in tenths of a thousandth of an inch. I love the accuracy. It’s part of my trade.

“It hasn’t been an effort for me to keep going. I love it. I think you have to be hung-ho to go into something like this. Have no ideas of saying, ‘If I don’t like it, I’ll quit.’ You have to be totally committed before you go into an apprenticeship — four years is a long time. But it goes by quickly; it’s not like going to school for four years. You’re getting paid while you learn.

“I always wanted to be an electrician.

“When I was small I used to always say I was going to be one. Everyone used to laugh. One night, I told my Dad I wanted to apply for an apprenticeship position, and he just kept eating his supper. But it’s total encouragement now. My mother is just ecstatic about me being an electrician. She’s more excited about this than I am. I think she wishes she could do something like that.”

“With NC, engineers now have the flexibility to design more sophisticated parts with compound curves and contours. These parts offer more of a challenge to machinists. If we didn’t have NC, the cost of producing these complicated parts would be many times greater. No engineer would have even considered designing a part like that, before the arrival of NC machines.

“If we can help make good machinists out of our apprentices, they’re going to help us do a more effective job in two or three years’ time.

“All of our apprentices will get the chance to learn the various aspects of Numerical Control. Some of our apprentices first visited the plant on Work Experience Programs arranged through local high schools. These were good opportunities for us, because we knew we were hiring people who were interested in our company and in becoming machinists.

“When an apprentice asks me whether he’s going to get ahead at AECL, I say, well, look at me. I’ve been here only eight years. I went from third class machinist up to foreman and I’m only 32 years old. I’m sure if they want to, if they’re pushing hard enough, they’ll have my job if they get better than me, but they’ll have to push!”

“We have three training programs in our shop, sheet metal worker, tire mould machinist and fitter machinist. When interviewing candidates for a training position, we’re looking for someone who’s eager to learn and who really wants to be a tradesperson. We’re looking for a person who has successfully

completed at least grade 12, with specific course credits, and who shows some stability and maturity. The candidate can’t be all thumbs either; dexterity is important.

“It’s not all technical and it’s not all academic. The successful trainee has to have a good mixture of both.

“We only want to hire trainees who have made up their minds about what they’re going to do with their lives. We don’t want to lure them out of school. However, under a proper apprenticeship program, trainees should be encouraged to continue night school as an ongoing part of their education and career. After I completed my apprenticeship as a machinist here, for example, I continued studying both at the high school and university level.

“Uniroyal makes staff people out of their journeymen. And I can do my job better because of my machinist background. It’s an asset for anyone in a supervisory or management position to know ‘the tools of the trade.’”

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George Giesbrecht, General Manager, Uniroyal Ltd., Rubber Machinery Shops, Kitchener

“If it sounds like we’re terribly enthused about apprenticeship training, we are.”

“Skill training is the primary source of skilled people in Uniroyal’s Rubber Machinery Shops. It is almost the lifeline of our company. Certainly, we do hire from the outside, but we rely heavily on our training programs to replace those employees who retire or move on, or to fill new positions as we expand our shop.

“Companies who buy tooling or machines are really buying the result of skills. Companies need training programs to obtain needed tradespeople and to realize their full potential. Training should be a part of their ongoing review of their labour market needs. Personally, I think they should train for the good of their company, for two reasons — to secure their own people and to provide young people with the basis for life-long careers.

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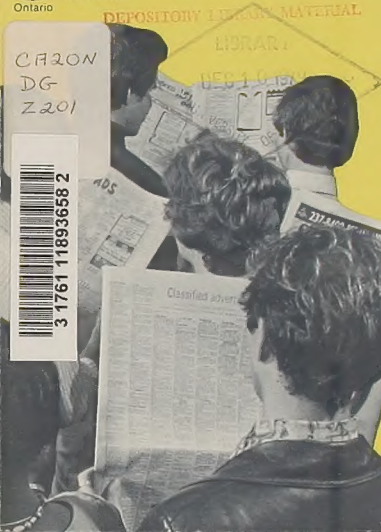
*The Legislative term

Skills at Work

Read personal accounts of opportunities in the skilled trades by people who know: employers, journeymen, and apprentices!



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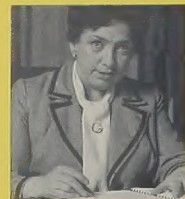
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Information about apprenticeship is available at any of the following Apprenticeship Branch offices of the Ministry of Colleges and Universities:

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left it up to me to decide. My two brothers were pulling for me, too. That helps.
"It can be hard to find an apprentice position; you've got to be willing to move where the jobs are. But once you've got your journeyman certification after the training period, you're on your way."
"Learning a trade is what I've always wanted to do and I'm glad I am where I am. I think the trades are the best place to be." •



Bette Stephenson, M.D.
Minister of Colleges and Universities,
Minister of Education

"We must all recognize the absolutely vital role of skilled tradespeople in our society; with their heads and their hands, using machines and tools, they make Canada industrially productive. They become our entrepreneurs and often the presidents of their own companies — the very backbone of our economy. As these interviews show, the career opportunities in the skilled trades are almost unlimited." •

repairs. Although our two sons would help sometimes, it was really Gwen and I who did all the building, fixing, and repairing. She seemed to have a knack for mechanical work. Even at that time, she was considering becoming a mechanic and we encouraged her.

"With a trade background, you're secure, you can always get a job, you can always earn money. Gwen understood that at a very early age."

"I worked in the mines myself as an electrician. I also did mechanical and carpentry work. Now I'm a real estate broker and my trade background certainly helps me. I can tell a commercial property buyer, for example, that an electrical panel is not adequate for their needs. It helps me do appraisals, too. There are many real estate people and other small businessmen today who are former plumbers, carpenters and electricians and making an extremely good living."

"Because tradespeople have to keep learning and experimenting with new methods, they are more adaptable to change. I think that's why tradespeople will always have the advantage, why they'll always be able to take care of themselves in a major recession, for example, because they can adapt to and learn new life skills."

"A trade is the basis for everything. I really feel that, in the future, more and more people are going to be involved in the trades. The trades are coming back."

Gwen Catherwood: "My parents have supported me one hundred per cent. Naturally, they pointed out the pros and cons of training and working in the skilled trades but they

before. You can put yourself in their shoes and understand your people's problems. I think this experience on the shop floor is very important. On the other hand, my university training helps me relate well to management. I would recommend the route I followed to anyone."

"If I ever had to leave my present job, I'd go back to the machine shop and be a machinist. It's my first love, and it gives me a feeling of security." •

"Personally, I feel there is no substitute for a person who has gone through a trade first and then university.
"After university, your trade training really starts to pay off. A company can shoot you directly into a supervisory job. You've got something which the person who has come straight through university will probably never get: you've worked with people in the union for a number of years; you already know about shiftwork and working weekends; you've been there

Lorne and Violet Catherwood, Parents of Gwen Catherwood, Apprentice, Kingston

"We are awfully proud that our daughter is a mechanic — really, really proud of her — mainly because she did what she wanted to do and she was successful at getting what she wanted. We couldn't be more thrilled had she graduated as the best student in medicine or law."

Violet Catherwood: "Gwen has been hired by Rio Algom in Elliot Lake to apprentice at one of the mines as an industrial mechanic. At first Gwen will be working above ground on their pumps and mill equipment. But she might well be one of the first women in Ontario as a heavy duty equipment mechanic apprentice to work underground after the legislation goes into effect. Until now, women

were never allowed to work underground. Gwen has been credited with almost one year off her apprenticeship term because she graduated from Sir Sandford Fleming College in the heavy equipment mechanic program following grade 13."

Lorne Catherwood: "At one time we owned a hobby farm with a lot of very old machinery which always needed



Alex MacDonald, B.Sc., Superintendent of Mechanical Maintenance, Algoma Steel Company, Sault Ste. Marie

"I can't say enough to people about the importance and value of learning a trade today."

"About 45 per cent of our tradespeople in Canada today are over 40 years of age, if I remember a recent survey correctly. Young people should realize that a skilled trade is a good career path to follow. They will be in demand — no doubt about it. Then, if they want to get further ahead by going to college or university, they can and also carry with them a practical trades background."

"I wanted to be a machinist from the time I entered high school, although there were a number of careers I could have chosen. The money was good, the working conditions were good, and the machinists I knew looked like they enjoyed a pretty fair living without too many worries. After grade 12, I trained in the machine shop at Algoma. Every year I took correspondence courses and advanced technical courses at night school."

"I loved the trade — I still do — but I could not see myself progressing far enough in the company at that time with the education I had. So I went to university to study mechanical engineering."

"My trade background was of tremendous benefit when I studied tool and machine design, metallurgy, strength of materials and even physics. The other engineering students, with no trade experience, had two disadvantages: they were probably five years younger than I was, and they hadn't worked with machinery, tooling, or metals. I think, too, you have a greater interest in your studies, in finding out exactly why a steel shaft breaks, for example, because you have seen something similar happen in the machine shop. Then you start applying theory to actual situations and you learn both ways."